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IN THE CLAIMS

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1. (Currently amended) Transceiver apparatus for use in a multi-frequency communication system, comprising:

a signal processor,

an antenna-switch comprising a multi-switch, a transmission-multiplexer and a reception multiplexer, wherein said multiplexers are controllable by the signal processor,

a frequency conversion circuitry having a transmission path and a reception path, wherein each of the paths communicatively connects the signal processor and the antenna-switch, and

an antenna terminal having a plurality of antenna, each antenna having a transmission-connector for connecting the transmission path to the antenna and a reception-connector for connecting the reception path to the antenna, wherein the antenna-switch, controllable by the signal processor, allows multi-frequency operation of the antenna-terminal by combining a transmission-mode and a reception-mode of each of the plurality of antenna,

the signal processor controlling the respective switches of the multiple antennas such that, at a particular instant in time, each of the multiple antennas is configured as either a transmit-only antenna or a receive-only antenna.

- 2. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the signal processor is an analogue-digital signal processor formed by a direct digital synthesizer driven phase locked loop radio frequency signal generator.
- 3. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the frequency conversion circuitry comprises at least one of a local oscillator and a power

divider to supply a local oscillator power to the transmission path and/or the reception path.

- 4. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the frequency conversion circuitry comprises a mixer device for converting the signal between an intermediate frequency and a radio frequency.
- 5. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the frequency conversion circuitry comprises a direct conversion device for converting the signal between a base band frequency and a radio frequency, in particular by means of an IQ-method.
- 6. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna switch comprises a matching unit formed as a frequency regulated matching filter in order to provide an optimal matching factor for the antenna.
- 7. (Previously presented) Transceiver apparatus as claimed in claim I, wherein the antenna switch comprises a bus connection to the signal processor, wherein the busconnection is formed as a matching network.
- 8. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna switch further comprises a beam forming matrix device, in particular a Butler-output-matrix selected from the group consisting of: a 4x4, a 8x8 and a 16x16 Butler output matrix.
- 9. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein matching units are provided inside the Butler-matrix, in particular a modified Butler-output matrix output/input is formed as a frequency regulated matching filter in order to provide an optimal matching factor for the antenna.
- 10. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the

antenna terminal comprises a patching unit formed as a low-pass-filter to improve the matching of the antenna for different frequencies and/or for different modes of a multi-frequency communication system, in particular of a mobile cellular communication system or a personal communication system.

- 11. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna terminal comprises a matching unit for the antenna, in particular an LC component, in order to provide an optimal matching factor for the antenna.
- 12. (Currently amended) Transceiver apparatus as claimed in claim 1, wherein the antenna terminal comprises at least two, in particular four, antennas.
- 13. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna is formed as an s-loop antenna having two ends formed as the transmission connector and/or the reception connector.
- 14. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna is configured as a copper wired antenna, in particular as a flexible line antenna made of copper.
- 15. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna is configured as a SMD-planar antenna.
- 16. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the antenna has a body and the body comprises an integrated patching and/or matching unit.
- 17. (Currently amended) Transceiver apparatus as claimed in claim 1, wherein the antenna terminal forms a beam of 360 degrees; in particular the antenna beam is formed within a range of 200 degrees.
- 18. (Previously presented) Transceiver apparatus as claimed in claim 1, wherein the

antenna beam comprises a 90 degree beam, in particular the beam is formed by a 50 degree main beam and two 20 degree side beams

19. (Canceled)

20. (Currently amended) Method of transceiving a multi-frequency signal in a multi-frequency communication system, comprising the steps of:

processing the signal in a signal processor,

operating an antenna terminal by an antenna-switch comprising a multi-switch, a transmission multiplexer and a reception multiplexer, wherein the multiplexers are controlled by the signal processor, and transceiving the signal by means of at least a selected one of a plurality of antenna of the antenna terminal,

frequency converting the signal in a frequency conversion circuitry wherein frequency converting of the signal in the frequency conversion circuitry is established on a transmission path and a reception path, wherein each of the paths communicates the signal between the signal processor and the antenna switch,

wherein multi-frequency antenna terminal operation is established by combining a transmission-mode of the antenna and a reception-mode of the antenna, controlled by the signal processor, by means of the antenna-switch, and communicating the signal between the transmission path and the selected antenna via the transmission multiplexer and a transmission connector of the antenna and between the reception path and the selected antenna via the reception multiplexer and a reception connector of the selected antenna,

the signal processor controlling the respective switches of the multiple antennas such that, at a particular instant in time, each of the multiple antennas is configured as either a transmit-only antenna or a receive-only antenna.

- 21. (Currently amended) Method as claimed in claim 20, characterized by comprising directly frequency converting the signal in a frequency conversion circuitry between a base band signal and a radio frequency signal.
- 22. (Currently amended) Method as claimed in claim 20, characterized bycomprising frequency converting the signal in a frequency conversion circuitry between an intermediate frequency signal and a radio frequency signal.
- 23. (Previously presented) Method as claimed in claim 20, wherein a reference of an incoming signal is processed in an antenna switch after checking a beam direction and a signal quality, in particular based on a BER-measurement.
- 24. (Canceled)
- 25. (Canceled)
- 26. (Canceled)
- 27. (Canceled)
- 28. (Canceled)
- 29. (Currently amended) A communications method using a communications transceiver having multiple antennas having respective switches, a transmission path, a reception path, a transmission multiplexer, a reception multiplexer, and a processor, comprising:

the processor controlling the transmission multiplexer and the reception multiplexer such that during transmission the transmission path is coupled to a selected antenna and during reception the reception path is coupled to a selected antenna; and

the processor controlling the respective switches of the multiple antennas such that, at a particular instant in time, each of the multiple antennas is configured as either a transmit-only antenna or a receive-only antenna.

- 30. (Currently amended) A communications transceiver comprising:
 - multiple antennas having respective switches;
 - a transmission path;
 - a reception path;
- a transmission multiplexer coupled to the transmission path and to multiple antennas;
- a reception multiplexer coupled to the reception path and to multiple antennas; and
 - a processor;

wherein the processor controls the transmission multiplexer and the reception multiplexer such that during transmission the transmission path is coupled to a selected antenna and during reception the reception path is coupled to a selected antenna; and

wherein the processor controls the respective switches of the multiple antennas. such that, at a particular instant in time, each of the multiple antennas is configured as either a transmit-only antenna or a receive-only antenna.